LIFE HISTORIES OF SOME EAST AFRICAN LEPIDOPTERA.

By T. H. E. JACKSON, F.E.S.

POLYPTYCHUS FALCATUS.

Food plant: *Erythrina tormentosa.* Nandi-Kakarwet.

Larva: General colour pale green with the following white markings: diagonal stripes on the laterals from the 5th-11th segments and a double dorsal line. In addition the spiracles are white and the head is demarcated by a white line. A black horn at the anal extremity. The head is rather large, square, and shiny green in colour.

Pupa: Underground. The imago took 27 days to emerge.

TEMNORA PSEUDOPLYAS.

Food plant: *Pentas sp.*

Larva: Pale green, shaped as in the *Choerocampinae*, the three thoracic segments tapering to the very small head. It has the usual protective habit of withdrawing the former into the abdomen and rearing itself up when alarmed, so bringing the eyespots into special prominence.

There is a darkish blue-green dorsal line and alternate white and dark green diagonal stripes on the laterals, the former being interrupted at the segment rings. The eye spots on No. 4 are yellow and the horn is black and short.

Pupa: Underground; brown, 27 mm. The insects emerged within 30-45 days.

BALACRA RATTRAYI.

Food plant: Almost any kind of common weed.

Larva: Black, heavily coated with brownish black hair. To each segment there is a transverse row of brown warts bearing black spines which are extremely poisonous if rubbed against the skin. Dorsal line thick and black. Head shiny black and rather small.

Pupa: In a rough cocoon in rubbish on the top of the ground. Imago emerged in 36 days.

CHARAXES LACTETINCTUS.

Food plant: *Sygygium cordatum.* Elgonyi, Lamaiynet.

Larva: A rather light green; the skin has a rough appearance due to numerous papillae. The body line is pale yellowish white and the anal extremity is bluntly bifurcate. There are two large spots, one on No. 6, the other on No. 8, coloured pure white, in fact startlingly so, that at No. 6 being oval, the other circular and smaller.

The head is green outlined in white, shield shaped, much longer than it is broad and rather square across the mouth parts. There are four horns, thick, blunt-ended and almost straight, roughened with papillae, the inner pair being long, 6 mm. on the outside tipped dark red for 2 mm. of their length, the outer only 3 mm. and almost entirely red. The latter curve slightly inward and all four have a somewhat varnished appearance.

Pupa: The pupa is plain light green with no markings whatever. Spiracles reddish brown. It is shaped rather like that of *Ch. pollux* except that the abdominal segments curve away sharply from the creamaster. The head case is almost square, and there is practically no depression or " waist " midway across wing cases; anteriorly it is straight. Creamaster pale olive brown with a bilobed process on each side and two triangular excrescences in front and below. The imago (♂) emerged in 36 days.

HIPPOTION OSIRIS.

Food plant: White arum-lily (garden variety), and a small, very common weed.

Larva: Shape typical *choerocampinae*. The thoracic segments are light dirty grey with large black blotches, the remainder being brownish black with pale creamy brown segment rings and body line. There are two well-defined eye-spots at No. 4 black with mauve centre spots and a light brown outline. At No. 5 there are two further eye-spots coloured black and outlined in brown. Spiracles white, head red, as also the prolegs. Ventral surface black and horn long, thin, and black.

Pupa: In a rough open web on the surface of the ground. It is long and thin and coloured much as the larva, dirty brown with lighter segment rings. Imago emerged in just over two months.

NUDARELIA JEFFREYI.

Food plants: *Bersama engleriana*, Gurke (Kony, Kipsagiriet) and *Toddalia asiatica*, Laink. (Kony, Somboroget).

Ova: Oval, but appears circular when looked at from above, since it is placed upright on the uppersides of the leaves. It is dirty whitish brown with a dark brown ring round it, half way from the base and a dark brown spot in the centre on top.

Larva: The young larva is pale yellow and hairy, covered thickly with minute black spots, the colour becoming brighter during the second instar. In the 3rd stage it becomes pinkish grey, the hair is longer, and there are three rows of black spots on the dorsal, two ditto on the lateral surfaces. Legs and anal claspers are flesh pink and the head is very large and shiny black. Later, at the 4th instar, the colour changes to pale yellow, powdered and dotted with black, the segment

rings being formed of eight black spots connected by a line between. There are many fleshy, red spines arranged in rings of eight at each segment all bearing hair, and equidistant from each other. The anal claspers are red and heavy as in all Saturnine larvae. There is no appreciable difference in the later stages except that the ground colour becomes almost white. In all from the egg 47 days.

Pupa: Underground in hard earth casing. The imago emerged in 3½ months.

LECHRIOLEPIS NIGRIVENIS.

Food plant: *Rhus incana*, Mill. (Kony, Siruet).

Larva: I have not seen the ova or young larva of this but the following may serve to place it when discovered in the field.

The general colour is pinkish grey with bright blue markings. The dorsal line is broad pale pinkish and carries long filaments of sparse white hair at segments 4-10. On either side of this is a dark line, paler at the junctions of the segment rings, bearing a pair of bright blue warts to each division. At segment 10 on each side of the dorsal line are claret coloured spots. The laterals are pinkish and adorned with hair-bearing warts. In addition to the above there is a large blue spot anterior to the anal claspers and the collar is blue. The head is black streaked with yellow and two thin filaments of white hair lie out in front on either side of it. Legs pink. In the last stage the ground colour is yellow striated with pink. On the dorsum from segments 6-10 are five large silky white spots, nearly circular but notched posteriorly. Similar semi-circular spots appear above the legs and there are rows of blue warts now on the laterals. Head sepia brown and yellow in stripes.

Pupa: Enclosed in a white or yellow boat-shaped cocoon, spotted with black. Some emerged in 16 days while others took over six months.

LOBOBUNNEA TYRRHENA.

Food plants: *Ekebergia ruëpelliana*, Fresen. (Kony, Kabuimetiet).

Ova: The eggs are laid singly or in groups of 4-5 on the upper sides of the leaves. They are oval with flattened ends and are placed with the long axis parallel to the surface of the leaf, the dimensions being 3 mm. x 1 mm. When freshly laid they are green except at the anterior end which is white with a small black dot in the centre, but in the course of a day or two they gradually become darker and then black.

Larva: The young larva emerges in six to seven days and in the first two instars is black with orange yellow spines, the head being shiny black. At the 3rd instar the colour changes to green with four rows of warts bearing yellow spiny florescences taking the place of the

original yellow spines; these rows are interrupted, however, at sections 1-3 where appears a square of four black rosettes and at No. 11 where there is one, also black. Head brown; at the 4th instar there is no change except that the warts and spines are now all red orange and at section No. 5 there are two metallic silver projections, the collar also being broadly silver.

In the last stage the warts disappear. The segments are very sharply defined, the whole dorsum being corrugated, while at segments 1-3 are four large, raised humps, and at No. 11 one similar excrescence. The colour is clear dark green, slightly lighter on the dorsum with a pale line down the centre. The body line is yellowish green, paling to white just before the anal claspers which are large and edged with thick red brown armouring. Spiracles bright orange. The head is green and is retired into the thoracic segments when the larva is at rest or is alarmed. Larval stage between 47 and 55 days.

Pupa: Underground in a rough earth cavity; it is blackish brown and of the usual Saturnine shape. The imago appeared just after three months but many remain over until the following spring.